

Contents

Articles

- 1 Cooper, R.A.: Ecostratigraphy, zonation and global correlation of earliest Ordovician planktic graptolites
- 17 Mángano, M.G., Buatois, L.A., West, R.R. & Maples, C.G.: The origin and paleoecologic significance of the trace fossil *Asteriacites* in the Pennsylvanian of Kansas and Missouri
- 31 Gilbert, J.M. de, Jeong, K. & Martinell, J.: Ethologic and ontogenic significance of the Pliocene trace fossil *Sinusichnus sinuosus* from the northwestern Mediterranean
- 41 Schiaparelli, S. & Cattaneo-Vietti, R.: Functional morphology of vermetid feeding-tubes
- 47 Müller, P., Geary, D.H. & Magyar, I.: The endemic molluscs of the Late Miocene Lake Pannon: their origin, evolution, and family-level taxonomy
- 61 Renaud, S., Michaux, J., Mein, P., Aguilar, J.-P. & Auffray, J.-C.: Patterns of size and shape differentiation during the evolutionary radiation of the European Miocene murine rodents
- 75 Palmqvist, P., Arribas, A. & Martínez-Navarro, B.: Ecomorphological study of large canids from the lower Pleistocene of southeastern Spain
- 89 Parra, V., Jaeger, J.-J. & Bocherens, H.: The skull of *Microtia*, an extinct burrowing murine rodent of the late Neogene Gargano palaeoisland
- 101 Sanders, D.: Shell disintegration and taphonomic loss in rudist biostromes
- 113 Vecchione, M., Young, R.E., Donovan, D.T. & Rodhouse, P.G.: Reevaluation of coleoid cephalopod relationships based on modified arms in the Jurassic coleoid *Mastigophora*
- 119 Lazier, A.V., Smith, J.E., Risk, M.J. & Schwarcz, H.P.: The skeletal structure of *Desmophyllum cristagalli*: the use of deep-water corals in sclerochronology
- 131 Shapiro, R.S. & West, R.R.: Late Paleozoic stromatolites: new insights from the Lower Permian of Kansas
- 143 Yuan Xunlai, Li Jun & Cao Ruiji: A diverse metaphyte assemblage from the Neoproterozoic black shales of South China
- 159 Suzuki, Y. & Bergström, J.: Trilobite taphonomy and ecology in Upper Ordovician carbonate buildups in Dalarna, Sweden
- 173 Kouchinsky, A.V.: Shell microstructures of the Early Cambrian *Anabarella* and *Watsonella* as new evidence on the origin of the Rostroconchia
- 181 Yue Zhao & Bengtson, S.: Embryonic and post-embryonic development of the Early Cambrian cnidarian *Olivoides*
- 197 Freeman, G. & Lundelius, J.W.: Changes in the timing of mantle formation and larval life history traits in linguliform and craniiform brachiopods
- 219 Xiao, S. & Knoll, A.H.: Fossil preservation in the Neoproterozoic Doushantuo phosphorite Lagerstätte, South China
- 241 Nebelsick, J.H.: Taphonomy of *Clypeaster* fragments: preservation and taphofacies
- 253 Cadée, G.C.: Bioerosion of shells by terrestrial gastropods
- 261 Melchin, M.J.: Origin of the Retiolitidae: insights from a new graptolite genus from the early Silurian of Arctic Canada
- 271 Vizcaino, S.F. & Fariña, R.A.: On the flight capabilities and distribution of the giant Miocene bird *Argentavis magnificens* (Teratornithidae)
- 279 Shu, D., Vannier, J., Luo, H., Chen, L., Zhang, X. & Hu, S.: Anatomy and lifestyle of *Kunmingella* (Arthropoda, Bradiriida) from the Chengjiang fossil Lagerstätte (lower Cambrian; Southwest China)
- 299 Zuschin, M., Stachowitsch, M., Pervesler, P. & Kollmann, H.: Structural features and taphonomic pathways of a high-biomass epifauna in the northern Gulf of Trieste, Adriatic Sea
- 321 Riding, R.: The term stromatolite: towards an essential definition
- 331 Rodríguez, J.: Use of cenograms in mammalian palaeoecology. A critical review

Lethaia Editorial

- 218 Changes in *Lethaia*

Lethaia Seminars

- 72 Braddy, S.J., Aldridge, R.J., Gabbott, S.E. & Theron, J.N.: Lamellate book-gills in a late Ordovician eurypterid from the Soom Shale, South Africa: support for a eurypterid-scorpion clade
- 155 Gubanov, A.P., Kouchinsky, A.V. & Peel, J.S.: The first evolutionary-adaptive lineage within fossil molluscs
- 157 Zhuravlev, A.V.: Resorption of conodont elements
- 318 Cadée, G.C.: Mass mortalities and mass extinction

Lethaia Reviews

- 140 Otto, M.: The problem of fossil interpretation
- 269 Cusack, M.: Prehistoric molecules

Announcements

- 196 *Fossils and Strata* No. 47

Erratum

- 100 [Article by Renaud *et al.* in Vol. 32:1]

Index of contributors

Aguilar, J.-P.	61	Cattaneo-Vietti, R.	41
Aldridge, R.J.	72	Chen, L.	279
Arribas, A.	75	Cooper, R.A.	1
Auffray, J.-C.	61	Cusack, M.	269
Bengtson, S.	181	Donovan, D.T.	113
Bergström, J.	159	Fariña, R.A.	271
Bocherens, H.	89	Freeman, G.	197
Braddy, S.J.	72	Gabbott, S.E.	72
Buatois, L.A.	17	Geary, D.H.	47
Cadée, G.C.	253, 318	Gilbert, J.M. de	31
Cao Ruiji	143	Gubanov, A.P.	155

Hu, S.	279
Jaeger, J.-J.	89
Jeong, K.	31
Knoll, A.H.	219
Kollmann, H.	299
Kouchinsky, A.V.	155, 173
Lazier, A.V.	119
Lundelius, J.W.	197
Luo, H.	279
Magyar, I.	47
Mángano, M.G.	17
Maples, C.G.	17
Martinell, J.	31
Martinez-Navarro, B.	75
Mein, P.	61
Melchin, M.J.	261
Michaux, J.	61
Müller, P.	47
Nebelsick, J.H.	241
Otto, M.	140
Palmqvist, P.	75
Parra, V.	89
Peel, J.S.	155
Pervesler, P.	299
Renaud, S.	61

Riding, R.	321
Risk, M.J.	119
Rodhouse, P.G.	113
Rodriguez, J.	331
Sanders, D.	101
Schiaparelli, S.	41
Schwarcz, H.P.	119
Shapiro, R.S.	131
Shu, D.	279
Smith, J.E.	119
Stachowitsch, M.	299
Stouge, S.	218
Suzuki, Y.	159
Theron, J.N.	72
Vannier, J.	279
Vecchione, M.	113
Vizcaino, S.F.	271
West, R.R.	17, 131
Xiao, S.	219
Young, R.E.	113
Yuan Xunlai, Li Jun	143
Yue Zhao	181
Zhang, X.	279
Zhuravlev, A.V.	157
Zuschin, M.	299

